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Date: March 4, 2004

Our ref. 15-414

***Via facsimile (41-22)740.14.35
& EMS mail***

"Amendment of the claims under 19(1) (Rule 46)"

Re: International Application No. PCT/JP03/10225

Applicant: KEIHIN CORPORATION

Agents: OCHIAI Takeshi & NIKI Kazuaki

International Filing Date: 11.08.03 (11th August 2003)

Dear Sirs,

The applicant, who received the International Search Report relating to the above identified International Application transmitted on 13.01.04, hereby file Amendment under Article 19(1) as in the attached sheets.

More specifically, the applicant hereby cancels sheet No. 6, and submits herewith new sheets Nos. 6 and 6/1 for replacement, because the intended amendments are to add new claims 5, 6 and 7 to the application. The original claims 1 to 4 are maintained.

Very truly yours,



Takeshi Ochiai (OCHIAI Takeshi)
Registered Patent Attorney in Japan
of Ochiai & Co.

Attachment:

(1) Amendment under Article 19(1) 2 sheets

請求の範囲

1. A l系構造部材 (1。) 表面に密着する下地層 (2) と、その下地層 (2) 表面に密着する防食皮膜 (3) とを有し、前記下地層 (2) は Z nよりなり、前
5 記防食皮膜 (3) は 3 価 C r を含む Z n 用クロメート皮膜よりなることを特徴とする耐食性 A l 系構造部材。

2. A l系構造部材 (1。) 表面に、ジンケート処理によって、Z nよりなる下
地層 (2) を形成する工程と、その下地層 (2) 表面に、3 価クロメート剤を用
いたクロメート処理によって、3 価 C r を含む Z n 用クロメート皮膜よりなる防
10 食皮膜 (3) を形成する工程とを用いることを特徴とする耐食性 A l 系構造部材
の製造方法。

3. 前記ジンケート処理に要する処理時間 t_1 は、前記 A l 系構造部材 (1。)
表面における Z n 析出量を増やして必要厚さの、Z nよりなる前記下地層
(2) を得ることができる値に設定され、前記クロメート処理に要する処理時間
15 t_2 は、そのクロメート処理による前記下地層 (2) の溶解にも拘らず、その下
地層 (2) の厚さを確保した上でその下地層 (2) 表面に、3 価 C r を含む前記
Z n 用クロメート皮膜を確実に形成することができる値に設定される、請求項 2
記載の耐食性 A l 系構造部材の製造方法。

4. 前記ジンケート処理に要する処理時間 t_1 が $t_1 \geq 30 \text{ s}$ であり、前記ク
ロメート処理に要する処理時間 t_2 が $t_2 \leq 15 \text{ s}$ である、請求項 3 記載の耐
食性 A l 系構造部材の製造方法。

5. (追加) A l 系構造部材 (1。) 表面に密着する下地層 (2) と、その下地
層 (2) 表面に密着する防食皮膜 (3) とを有し、前記下地層 (2) は Z nより
なり、前記防食皮膜 (3) は 3 価 C r を含むクロメート皮膜よりなることを特徴
25 とする耐食性 A l 系構造部材。

6. (追加) A l 系構造部材 (1。) 表面に、ジンケート処理によって、Z nよ
りなる下地層 (2) を形成する工程と、その下地層 (2) 表面に、3 価クロメ
ート剤を用いたクロメート処理によって、3 価 C r を含むクロメート皮膜よりなる
防食皮膜 (3) を形成する工程とを用いることを特徴とする耐食性 A l 系構造部
30 材の製造方法。

7. (追加) 前記ジンケート処理に要する処理時間 t_1 は、前記A1系構造部材 (1。) 表面におけるZn析出量を増やして必要厚さの、Znよりなる前記下地層 (2) を得ることができる値に設定され、前記クロメート処理に要する処理時間 t_2 は、そのクロメート処理による前記下地層 (2) の溶解にも拘らず、その下地層 (2) の厚さを確保した上でその下地層 (2) 表面に、3価Crを含む前記クロメート皮膜を確実に形成することができる値に設定される、請求項6記載の耐食性A1系構造部材の製造方法。

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Takeshi Ochiai (OCHIAI Takeshi)
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(1) Amendment under Article 19(1) 2 sheets

WHAT IS CLAIMED IS

1. A corrosion-resistant Al-based structural member comprising a base layer (2) adhered to the surface of an Al-based structural member (1₀), and a corrosion-inhibiting coating (3) adhered to the surface of the base layer (2), the base layer (2) comprising Zn, and the corrosion-inhibiting coating (3) comprising a trivalent Cr-containing chromate coating for Zn.
2. A process for producing a corrosion-resistant Al-based structural member, the process comprising a step of forming a base layer (2) comprising Zn on the surface of an Al-based structural member (1₀) by a zincate treatment, and a step of forming a corrosion-inhibiting coating (3) comprising a trivalent Cr-containing chromate coating for Zn on the surface of the base layer (2) by a chromate treatment using a trivalent chromate agent.
3. The process for producing a corrosion-resistant Al-based structural member according to Claim 2, wherein a treatment time t_1 required for the zincate treatment is set at a value that enables the amount of Zn deposited on the surface of the Al-based structural member (1₀) to be increased to give the base layer (2) comprising Zn having a required thickness, and a treatment time t_2 required for the chromate treatment is set at a value that enables the trivalent Cr-containing chromate coating for Zn to be reliably formed on the surface of the base layer (2) while ensuring the thickness of the base layer (2), despite the base layer (2) being dissolved by the chromate treatment.
4. The process for producing a corrosion-resistant Al-based structural member according to Claim 3, wherein the treatment time t_1 required for the zincate treatment is ≥ 30 s, and the treatment time t_2 required for the chromate treatment is ≤ 15 s.

5. (added) A corrosion-resistant Al-based structural member comprising a base layer (2) adhered to the surface of an Al-based structural member (1₀), and a corrosion-inhibiting coating (3) adhered to the surface of the base layer (2), the base layer (2) comprising Zn, and the corrosion-inhibiting coating (3) comprising a trivalent Cr-containing chromate coating.

6. (added) A process for producing a corrosion-resistant Al-based structural member, the process comprising a step of forming a base layer (2) comprising Zn on the surface of an Al-based structural member (1₀) by a zincate treatment, and a step of forming a corrosion-inhibiting coating (3) comprising a trivalent Cr-containing chromate coating on the surface of the base layer (2) by a chromate treatment using a trivalent chromate agent.

7. (added) The process for producing a corrosion-resistant Al-based structural member according to Claim 6, wherein a treatment time t_1 required for the zincate treatment is set at a value that enables the amount of Zn deposited on the surface of the Al-based structural member (1₀) to be increased to give the base layer (2) comprising Zn having a required thickness, and a treatment time t_2 required for the chromate treatment is set at a value that enables the trivalent Cr-containing chromate coating to be reliably formed on the surface of the base layer (2) while ensuring the thickness of the base layer (2), despite the base layer (2) being dissolved by the chromate treatment.